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10/769,706	01/30/2004	Hank E. Millet	0315-487/COD	8725

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EXAMINER
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FREAY, CHARLES GRANT

ART UNIT	PAPER NUMBER
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3746

MAIL DATE	DELIVERY MODE
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07/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/769,706

Applicant(s)

MILLET ET AL.

Examiner

Charles G. Freay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/2004, 9/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of species 1 from Group I, species 6 from Group II, species 29 from Group IV in the reply filed on June 26, 2007 is acknowledged. The traversal is on the ground(s) that the subject matter is related and there would be no undue burden to consider all of the species. This is not found persuasive because the proper traversal of a species is an admission that the species are obvious variants, furthermore the search for the numerous generically disclosed data and variable require extensive search and consideration and would be an undue burden.

The requirement is still deemed proper and is therefore made FINAL.

The examiner notes that after further review the election require with respect to the third species set (species 27 and 28) has been removed.

### ***Claim Objections***

Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The material set forth in claim 2 is already included in independent claim 1.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 recites the limitation "microprocessor" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 8, 9 and 22 recite the limitation "said sensor data" in the first line of claims 8 and 22 and the last line of claim 9. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Centers et al (USPN 6,471,485, hereafter Centers).

Centers discloses a compressor system and control system comprising a compressor(s) (1002) and an electronic control system (1004) that is analogous to the claimed controller. The device includes a motor (100) and a shell (not enumerate). The controller includes a microprocessor (col. 5 ln. 67) and there is memory (Fig. 5B and the

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first two full paragraphs of col. 19). The controller (1004) is in communication with the compressor (1002). Multiple compressors (1002) can be controlled at the same time, in which case multiple electronic control systems are linked via network in a peer-to-peer configuration, see abstract. A remote computer used for monitoring, controlling, downloading firmware and software, and communicating compressor operation data constitutes a system master. As set forth in col. 25 line 42 through col. 26 line 27 the system master is in communication with the electronic controller and is operative to receive and send stored compressor configuration information to and from the controller. The random access memory chips (510) are used for storage of operating data, i.e. compressor configuration information, history data, and parameter calculation results, see col. 19 33-37. All operating parameters, service information, shut down records, sensor input information (including temperature and pressure data), are transmitted from the electronic control system (1004) to the system master computer. All of the stored operating parameters of the electronic control system (1004) can be modified by the system master, see col. 15 lines 5-17 which sets forth that the remote controller accesses all information of the electronic control system. It is clear that compressor identification data is stored since Centers at col. 6 line 66 through col. 7 line 8 refer to the manufacturers data for the compressor and col. 7 lines 37 - 45 make reference to the compressor model. Event history data is also stored for a variety of conditions (for example col. 7 lines 8-13 or col. 9 lines 57 and 58 where the number of cycles per minute are noted). Cycle time and number data (col. 9 lines 49-65). Application data such as end user pressures and temperatures (col. 14 lines 27-36).

The control system uses pressure and temperatures sensors, among others, to detect or predict actual shutdown conditions based on the operating state of the compressor (1002). These signals are transmitted to the system master, and are indicative of an operating characteristic of the compressor, see col. 9 lines 21-26.

With respect to claims 6, 14, 17 and 20 there is no explicit teaching of the controller (1004) including a pluggable gateway, however as disclosed in col. 13 line 65, and col. 14 lines 24-28, the control system (1004) includes a network interface connection (2013). Among its multiple circuit boards, for connection of the control system and the compressor to the network, the system master and the other compressor. This data interface constitutes a gateway board. Centers includes a plurality of connectors (J1, J2, J8, J11) and microprocessor boards (500), annunciator boards (600) and ARCnet peer-to-peer network communication interface circuits, which constitute communication interfaces or gateways.

With respect to the recitation of the types of data (for example compressor identification data) or to recitation of a specific data element (for example refrigerant data) throughout the claims as noted above Centers discloses the limitations as claimed. However, it is additionally noted that the reference to the type of data is directed to nonfunctional descriptive material and does not alter how the data is transmitted, received or stored between the control block and the system master. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (fed. Cir. 1994).

From the teachings of Centers one of ordinary skill in the art would understand how to transmit receive and store any type of data between the control block and the system master because the subjective interpretation of the data does not patentably distinguish the claimed invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Centers in view of Hull et al (USPN 6,487,457, hereafter Hull).

Centers discloses the invention substantially as claimed but does not disclose a compressor rack. Hull discloses a cooling system for a building including a compressor rack (306 in Fig. 3 or 410 in Fig. 4) including plural compressors (312 and controllers 308 or 422). The server (304) acts as a system master or the client controllers (300) act as system masters. As set forth in the abstract various data related to equipment descriptions, locations, contact information for alarms, utility rate information and manufacturer and vendor information is stored in the building management system and event histories (see col. 7) are generated and communicate between the controllers. At the time of the invention it would have been obvious to one of ordinary skill in the art to use a compressor rack having the plural compressors of Centers connected thereto as an efficient means of allowing the system master to communicate with all of the compressor elements and their controllers.

Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Centers in view of Culp III et al (USPN 5,975,854, hereafter Culp).

As set forth above Centers discloses the invention substantially as claimed but does not disclose a vibration sensor or that the control block is mounted on the housing. Culp teaches of a compressor (10) with a terminal box assembly (28). The box contains a protection module (86), which is analogous to the claimed inventions control block. The protection module, which includes vibration sensors, power supply circuits, and control circuits (Fig.s 4 and 7), is mounted on the compressor housing via the terminal box (col. 6 line 61-62). Therefore it would have been obvious to one of ordinary skill in



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the art at the time of the invention was made to modify the Centers device by mounting the control block and vibration sensors of Culp on the housing in order to integrate the unit and create a smaller footprint.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 52, 19-22, 26-28, 30, 32-34, 48, 49, 55-58 and 65-67 of copending Application No. 09/977552 (hereafter ('552) in view of Hull. ('552) discloses the invention substantially as claimed and includes substantially all of the limitations of the present claims but the limitations are placed together in a different order than the claims of the instant application. ('552) does

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not disclose a compressor rack (as set forth in claims 1-8 of the instant application) or a motor (as set forth in claims 17-22). It is inherent that every compressor have a motor since a means for driving the compressor is required. Hull, as set forth above, discloses a similar compressor system having a compressor rack. At the time of the invention given the elements as set forth in ('552) it would have been obvious to construct the arrangement of claims 9-15 by making the plural compressors into its simplest arrangement of two compressors. Furthermore, it would have been obvious to one of ordinary skill in the art to include a rack as an efficient means of allowing the system master to communicate with all of the compressor elements and their controllers.

This is a provisional obviousness-type double patenting rejection.

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/769703 (hereafter ('703)) in view of Centers. ('703) discloses the invention substantially as claimed and includes substantially all of the limitations of the present claims but the limitations are placed together in a different order than the claims of the instant application. ('703) does not disclose a housing or a motor and further it does include additional elements such as an internet web server. Centers clearly teaches of a similar compressor and control system as set forth above including a housing and a motor (see above rejection). At the time of the invention given the elements as set forth in ('552) to provide the compressor with a housing and a motor as

taught by Centers in order to provide the required drive means which can operate with the control system and also to provide protection from the elements.

Furthermore, since the claims of the ('703) application include most of the elements of the instant application except for the web server the claims of the instant invention are broader than the claims of ('703). At the time of the invention it would have been obvious to one of ordinary skill in the art to obtain presently claimed compressor from the more detailed claimed compressor and control system of ('703).

This is a provisional obviousness-type double patenting rejection.

Claims 1-22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9, 11 and 21 are of U.S. Patent No. 6,302,654 in view of Centers. Claims 9, 11 and 21 disclose a compressor and control system substantially as claimed but does not set forth that the controller includes memory or the specific data types and data elements set forth in the claims of the instant invention. As noted in the earlier rejection Centers discloses a similar compressor and control system having memory (Fig. 5b) which stores the claimed data types and specific data elements. At the time of the invention it would have been obvious to one of ordinary skill in the art to include a memory as a well known mechanism which stores and allows retrieval of data.

With respect to the recitation of the types of data (for example compressor identification data) or to recitation of a specific data element (for example refrigerant data) throughout the claims as noted above Centers discloses the limitations as

claimed. However, it is additionally noted that the reference to the type of data is directed to nonfunctional descriptive material and does not alter how the data is transmitted, received or stored between the control block and the system master. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (fed. Cir. 1994).

From the teachings of Centers one of ordinary skill in the art would understand how to transmit receive and store any type of data between the control block and the system master because the subjective interpretation of the data does not patentably distinguish the claimed invention.


### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Charles G. Freay  
Primary Examiner  
Art Unit 3746

CGF  
July 16, 2007